



Species

Floristic study of kalbhairavnath sacred grove, Bharsakale, Satara, Maharashtra

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ABSTRACT

The Bharsakhale sacred grove is very unique in floral diversity. It comprises of 177 flowering plant species under 137 genera belonging to 65 families. This sacred grove is large source of important bioresources for local people. Therefore it is essential to protect these natural habitats.

Keywords: Bharsakhale, Western Ghats, Endemic, Sacred groves

1. INTRODUCTION

In India and many parts of the world, a number of communities practice different forms of nature worship. One such significant tradition of nature worship is that of providing protection to patches of forests dedicated to deities or ancestral spirits. These vegetation patches have been designated as sacred groves.

Sacred groves are dedicated by local communities to their ancestral spirits or deities. Such a grove may consist of a multi-species, multitier primary forest or a clump of trees, depending on the history of the vegetation. These groves are protected by local communities, usually through customary taboos and sanctions with cultural and ecological implications. The sacred groves have played an important role in preservation of vegetation in its virgin condition over many centuries. The religious belief associated with the sacred grove dates back to hunting and gathering phase of human evolution.

It is believed that the sacred groves originated after the introduction of the practice of agriculture and are found in almost all parts of India. They can be described as a mini-ecosystem containing a rich repository of nature's unique biodiversity. They are also a product of the socio-ecological philosophy of our ancestors.

In Maharashtra, sacred groves are found in tribal as well as non-tribal areas. The sacred groves in the western part are called Devrai or Devrahati, whereas in the eastern part the Madiya tribals call it Devgudi. A total of 2,820 sacred groves have been documented in Maharashtra (Deshmukh, 1999). Maruti; Vaghoba, Vira, Bhiroba, Khandoba and Shirkai are some of the deities to whom these groves are dedicated. The felling of timber and the killing of animals in the sacred groves is taboo. Sacred groves form an important landscape feature in the deforested hill ranges of the Western Ghats of Maharashtra (Ghate, 2014).

2. METHODOLOGY

The study area viz. 'Kalbhairvanath devrai' is located at Bharsakale village, Patan taluka, in Satara district (Maharashtra). It covers an area of about 40 hectares. Extensive floristic surveys were carried out in the sacred grove. Specimens of flowering plants were collected and identified with the aid of different floras (Yadav & Sardesai 2002; Sharma et. al 2001). The specimens were processed for herbarium. The botanical names are confirmed and upgraded according to current nomenclatural changes (TROPICOS; THE PLANT LIST).

3. RESULT AND CONCLUSION

An enumeration of plant species along with local names is given in Table 1. The analysis of floristic enumeration of species reveals a total of 177 species belonging to 137 genera under 65 families. The sacred grove comprises of 15% endemic (26 species), 2 % critically endangered (2 species), 3% endangered (5 species), 1.13% vulnerable (2 species), 0.6% low risk (1 species) taxa. Along with this, *Wagatea spicata* Dalzell a monotypic endemic taxa of Western Ghats which is highly recognized medicinal plant occurs in the study region.

Table 1 Enumeration of plant wealth of the sacred grove

| Sr. No. | Botanical Name | Family | Common Name | Habit | Status |
|---------|--|-------------------|-------------|-------|----------|
| 1. | <i>Acacia concinna</i> (Willd.) DC. | Mimosaceae | Shikakai | T | M |
| 2. | <i>Acacia torta</i> (Roxb.) Craib | Mimosaceae | Chilar | T | |
| 3. | <i>Achyranthes aspera</i> L. | Amaranthaceae | Aghada | H | EW |
| 4. | <i>Actinodaphne angustifolia</i> Nees | Lauraceae | Pisa | T | |
| 5. | <i>Adenoon indicum</i> Dalzell | Asteraceae | Sunki | H | |
| 6. | <i>Aerides crispum</i> Lindl. | Orchidaceae | Kanvel | EH | |
| 7. | <i>Aerides maculoseum</i> Lindl. | Orchidaceae | Kanvel | EH | |
| 8. | <i>Allophylus cobbe</i> (L.) Forsyth f. | Sapindaceae | Hadkya | MT | |
| 9. | <i>Alternanthera ficoidea</i> (L.) P. Beauv. | Amaranthaceae | Chibukata | H | |
| 10. | <i>Ancistrocladus heyneanus</i> Wall. ex J. Graham | Ancistrocladaceae | Kardal | L | M; En. |
| 11. | <i>Anisomeles indica</i> (L.) Kuntze | Lamiaceae | Gopali | H | |
| 12. | <i>Argyreia boseana</i> Sant. & Patel | Convolvulaceae | Gayri | S | En. End. |
| 13. | <i>Arisaema murrayi</i> (J. Graham) Hook. | Araceae | Nagphani | H | |
| 14. | <i>Artemisia nilagirica</i> (C.B. Clarke) Pamp. | Asteraceae | Ranvila | H | |

| | | | | | |
|-----|---|-----------------|---------------|----|----------|
| 15. | <i>Artocarpus heterophyllus</i> Lam. | Moraceae | Phanas | T | WE |
| 16. | <i>Asystasia violacea</i> Dalzell | Acanthaceae | | H | |
| 17. | <i>Atalantia racemosa</i> Wight & Arn. | Rutaceae | Makadlimbu | MT | |
| 18. | <i>Azadirachta indica</i> A. Juss. | Meliaceae | Kadunimb | T | M |
| 19. | <i>Bauhinia vahlii</i> Wight & Arn. | Caesalpiniaceae | | T | O |
| 20. | <i>Begonia crenata</i> Dryand. | Begoniaceae | Kaparu | H | WO |
| 21. | <i>Breynia retusa</i> (Dennst.) Alston | Euphorbiaceae | Asana | S | |
| 22. | <i>Bridelia stipularis</i> (L.) Blume | Euphorbiaceae | | SS | |
| 23. | <i>Callicarpa tomentosa</i> Lam. | Lamiaceae | Aisar | T | |
| 24. | <i>Calotropis gigantea</i> (L.) W.T. Aiton | Asclepiadaceae | Rui | S | M |
| 25. | <i>Canthium dicoccum</i> (Gaertn.) Merr. | Rubiaceae | Tupa | MT | |
| 26. | <i>Capparis rotundifolia</i> Rottler | Capparidaceae | Kolisna | SS | |
| 27. | <i>Careya arborea</i> Roxb. | Lecithidaceae | Kumbha | T | M |
| 28. | <i>Carissa carandas</i> L. | Apocynaceae | Karanvanda | S | |
| 29. | <i>Caryota urens</i> L. | Areacaceae | Fishtail palm | T | M. |
| 30. | <i>Cassia fistula</i> L. | Caesalpiniaceae | Bahav | T | |
| 31. | <i>Catunaregam spinosa</i> (Thunb.) Tirveng. | Rubiaceae | Gela | MT | M |
| 32. | <i>Celtis tetrandra</i> Roxb. | Ulmaceae | | T | |
| 33. | <i>Ceriscoides turgida</i> (Roxb.) Tirveng. | Rubiaceae | | T | |
| 34. | <i>Ceropegia vincaefolia</i> Hook. | Asclepiadaceae | Mayalu | C | En; End. |
| 35. | <i>Chlorophytum breviscapum</i> Dalzell | Asparagaceae | Musali | H | |
| 36. | <i>Clematis gouriana</i> Roxb. ex DC. | Ranunculaceae | Ranjai | C | WO |
| 37. | <i>Colebrookea oppositifolia</i> Sm. | Lamiaceae | Ukshi | H | |
| 38. | <i>Combretum latifolium</i> Blume | Combretaceae | Piluk | L | |
| 39. | <i>Commelina caroliniana</i> Walter | Commelinaceae | Kena | H | |
| 40. | <i>Commelina forsskalaei</i> Vahl | Commelinaceae | Kena | H | |
| 41. | <i>Commelina tuberosa</i> L. | Commelinaceae | Kena | H | |
| 42. | <i>Crotalaria juncea</i> L. | Fabaceae | Tag | H | |
| 43. | <i>Cryptolepis buchananii</i> R. Br. ex Roem. & Schult. | Apocynaceae | Kavali | C | |
| 44. | <i>Curcuma neilgherrensis</i> Wight | Zingiberaceae | Ran Halad | H | |
| 45. | <i>Curcuma pseudomontana</i> J. Graham | Zingiberaceae | Ran Halad | H | |
| 46. | <i>Cyanotis cristata</i> (L.) D. Don | Commelinaceae | Nabhal | H | |
| 47. | <i>Cyanotis tuberosa</i> Schult. f. | Commelinaceae | Abhali | H | |
| 48. | <i>Cyathocline purpurea</i> (Buch.0Ham ex D. Don) O. Ktze var. <i>bicolor</i> Sant. | Asteraceae | Gangotra | H | CR |
| 49. | <i>Dalbergia latifolia</i> Roxb. | Fabaceae | Shisav | T | |
| 50. | <i>Dendrobium barbatulum</i> Wight | Orchidaceae | | EH | |
| 51. | <i>Dendrobium herbaceum</i> Lindl. | Orchidaceae | | EH | |
| 52. | <i>Dendrobium microbulbon</i> A. Rich. | Orchidaceae | | EH | |
| 53. | <i>Dendrobium ovatum</i> (L.) Kraenzl. | Orchidaceae | | EH | |
| 54. | <i>Dendrophthoe falcata</i> Ettingsh. | Loranthaceae | Bandgul | PH | |
| 55. | <i>Dioscorea quartiniana</i> A. Rich. | Dioscoreaceae | Karand | C | WE |
| 56. | <i>Diploclisia glaucescens</i> (Blume) Diels | Menispermaceae | Watanel | L | En. |
| 57. | <i>Elaeagnus latifolia</i> L. | Eleagnaceae | Nerli | L | WE; En. |
| 58. | <i>Elaeocarpus glandulosus</i> Wall. ex Merr. | Elaeocarpaceae | Rudraksha | T | O |
| 59. | <i>Entada rheedei</i> Spreng. | Mimosaceae | Garambi | L | En.; M |
| 60. | <i>Eranthemum roseum</i> R. Br. | Acanthaceae | Dasmuli | H | |
| 61. | <i>Eria dalzellii</i> Lindl. | Orchidaceae | - | EH | |

| | | | | | |
|------|---|----------------|---------------|----|----------|
| 62. | <i>Eria reticosa</i> Wight | Orchidaceae | - | EH | |
| 63. | <i>Eriocaulon gramineum</i> Bong. | Eriocaulaceae | | H | |
| 64. | <i>Eriocaulon stellulatum</i> Körn. | Eriocaulaceae | Chandani | H | |
| 65. | <i>Eriocaulon tuberiferum</i> A.R. Kulk. & Desai | Eriocaulaceae | - | H | En. End. |
| 66. | <i>Eucalyptus globulus</i> Labill. | Myrtaceae | Nilgiri | T | |
| 67. | <i>Eulophia spectabilis</i> (Dennst.) Suresh | Orchidaceae | - | H | |
| 68. | <i>Euphorbia laeta</i> Aiton | Euphorbiaceae | Dudhi | S | EW |
| 69. | <i>Exacum pumilum</i> Griseb. | Gentianaceae | - | H | |
| 70. | <i>Ficus benghalensis</i> L. | Moraceae | Wad | T | WE |
| 71. | <i>Ficus racemosa</i> L. | Moraceae | Umbar | T | WE; M |
| 72. | <i>Flacourtie latifolia</i> (Hook. f. & Thomson) T. Cooke | Flacourtiaceae | Tambat | MT | |
| 73. | <i>Flacourtie montana</i> J. Graham | Flacourtiaceae | Tambat | S | WE; En. |
| 74. | <i>Flemingia strobilifera</i> (L.) R. Br. | Fabaceae | Kanphuti | S | |
| 75. | <i>Glochidion ellipticum</i> Wight | Euphorbiaceae | Bhoma | T | |
| 76. | <i>Gloriosa superba</i> L. | Liliaceae | Kal-lavi | C | M |
| 77. | <i>Gnetum ula</i> Brongn. | Gnetaceae | - | C | En. |
| 78. | <i>Gnidia glauca</i> (Fresen.) Gilg | Thymelaeaceae | Datpadi | S | M |
| 79. | <i>Gomphrena serrata</i> L. | Amaranthaceae | - | H | |
| 80. | <i>Grewia asiatica</i> L. | Tiliaceae | Phalsa | S | |
| 81. | <i>Grewia microcos</i> L. | Tiliaceae | Shirali | MT | |
| 82. | <i>Gymnema sylvestre</i> (Retz.) R. Br. ex Schult. | Asclepiadaceae | Bedkichi pala | C | M |
| 83. | <i>Gynura nitida</i> DC. | Asteraceae | Halad-Kunku | H | |
| 84. | <i>Habenaria digitata</i> Lindl. | Orchidaceae | - | EH | |
| 85. | <i>Habenaria grandifloriformis</i> Blatt. & McCann | Orchidaceae | Kavadi | H | |
| 86. | <i>Habenaria longicorniculata</i> J. Graham | Orchidaceae | Gudhi | H | |
| 87. | <i>Habenaria marginata</i> Colebr. | Orchidaceae | - | H | |
| 88. | <i>Habenaria panchaganiensis</i> Santapau & Kapadia | Orchidaceae | Kavadi | H | En. End. |
| 89. | <i>Habenaria rariflora</i> A. Rich. | Orchidaceae | Kavadi | H | |
| 90. | <i>Hemidesmus indicus</i> (L.) R. Br. ex Schult. | Asclepiadaceae | Anantamul | C | M |
| 91. | <i>Heterophragma quadriloculare</i> (Roxb.) K. Schum. | Bignoniaceae | Waras | T | M |
| 92. | <i>Heterostemma deccanense</i> Swarupan. & Mangaly | Apocynaceae | - | H | |
| 93. | <i>Hibiscus rosa-sinensis</i> L. | Malvaceae | Jaswandi | MT | O |
| 94. | <i>Hitchenia caulina</i> (J. Graham) Baker | Zingiberaceae | Sonatakka | H | En. V |
| 95. | <i>Holarrhena pubescens</i> Wall. ex G. Don | Apocynaceae | Pandhara kuda | T | |
| 96. | <i>Holigarna grahamii</i> Kurz | Anacardiaceae | Ran-bibba | T | En. |
| 97. | <i>Hoya wightii</i> Hook. f. | Apocynaceae | Dudh vel | EH | |
| 98. | <i>Impatiens dalzellii</i> Hook. f. & Thomson | Balsaminaceae | Terda | H | En. |
| 99. | <i>Impatiens inconspicua</i> Benth. ex Wight & Arn. | Balsaminaceae | - | H | |
| 100. | <i>Impatiens lawii</i> Hook. f. & Thomson | Balsaminaceae | Ganga Gavar | H | En. |
| 101. | <i>Impatiens pulcherrima</i> Dalzell | Balsaminaceae | Dhal terda | H | |
| 102. | <i>Impatiens walleriana</i> Hook. f. | Balsaminaceae | Terda | H | WO; En. |
| 103. | <i>Indigofera cassioides</i> Rottler ex DC. | Fabaceae | Chimnati | S | |
| 104. | <i>Ixora brachiata</i> Roxb. | Rubiaceae | Kurati | S | WO |
| 105. | <i>Ixora coccinea</i> L. | Rubiaceae | Bakora | S | |
| 106. | <i>Ixora nigrescens</i> Drake | Rubiaceae | Kat-Kuda | S | |

| | | | | | |
|------|---|------------------|--------------|----|------------|
| 107. | <i>Ixora pavetta</i> Andrews | Rubiaceae | Nevali | MT | |
| 108. | <i>Jasminum malabaricum</i> Wight | Oleaceae | Ran- mogara | SS | WO |
| 109. | <i>Justicia adhatoda</i> L. | Acanthaceae | Adulasa | S | M |
| 110. | <i>Justicia cuspidata</i> Vahl | Acanthaceae | - | H | |
| 111. | <i>Lagerstroemia microcarpa</i> Wight | Lythraceae | Nana | T | |
| 112. | <i>Leea indica</i> (Burm. f.) Merr. | Leeaceae | Dinda | S | WE |
| 113. | <i>Leucas indica</i> (L.) R. Br. ex Sm. | Lamiaceae | Rudrapushpam | H | |
| 114. | <i>Maesa lanceolata</i> Forssk. | Myrsinaceae | Aataki | S | |
| 115. | <i>Magnolia champaca</i> (L.) Baill. ex Pierre | Magnoliaceae | Sonchapha | T | O |
| 116. | <i>Malaxis rheedii</i> Sw. | Orchidaceae | - | H | |
| 117. | <i>Mallotus pallidus</i> (Airy Shaw) Airy Shaw | Euphorbiaceae | Haldi-Kunku | T | En. |
| 118. | <i>Mangifera indica</i> L. | Anacardiaceae | Amба | T | WE |
| 119. | <i>Memecylon umbellatum</i> Burm. f. | Melastomaceae | Anjan | T | En. |
| 120. | <i>Merremia umbellata</i> (L.) Hallier f. | Convolvulaceae | Motiya | C | |
| 121. | <i>Meyna laxiflora</i> Robyns | Rubiaceae | Alu | MT | WE |
| 122. | <i>Mimusops elengi</i> L. | Sapotaceae | Bakul | T | WO; M |
| 123. | <i>Murdannia lanuginosa</i> G. Brückn. | Commelinaceae | Abolima | H | En. End. |
| 124. | <i>Murdannia nudiflora</i> (L.) Brenan | Commelinaceae | - | H | |
| 125. | <i>Murdannia simplex</i> (Vahl) Brenan | Commelinaceae | Nilima | H | |
| 126. | <i>Murraya koenigii</i> (L.) Spreng. | Rutaceae | Kadhipatta | T | |
| 127. | <i>Naravelia zeylanica</i> (L.) DC. | Ranunculaceae | - | C | |
| 128. | <i>Nervilia infundibulifolia</i> Blatt. & McCann | Orchidaceae | Pachar-Kuda | H | |
| 129. | <i>Nothopodytes nimmoniana</i> (J. Graham) Mabb. | Icacinaceae | Narkya | S | CR; En.; M |
| 130. | <i>Oberonia recurva</i> Lindl. | Orchidaceae | | H | |
| 131. | <i>Olea dioica</i> Roxb. | Oleaceae | Parjamb | T | En. |
| 132. | <i>Oxyceros rugulosus</i> (Thwaites) Tirveng. | Rubiaceae | Vel Gela | C | |
| 133. | <i>Paracalyx scariosus</i> (Roxb.) Ali | Fabaceae | Ran Ghevada | C | En. |
| 134. | <i>Paracaryum caelestinum</i> Benth. & Hook. f. | Boraginaceae | Nisurdi | H | |
| 135. | <i>Pavetta crassicaulis</i> Bremek. | Rubiaceae | Papat | S | En. |
| 136. | <i>Pavetta indica</i> L. | Rubiaceae | | S | |
| 137. | <i>Persicaria chinensis</i> (L.) H. Gross | Polygonaceae | Paral | CH | |
| 138. | <i>Phyllanthus emblica</i> L. | Euphorbiaceae | Awala | T | M, WE |
| 139. | <i>Pimpinella wallichiana</i> Gandhi | Apiaceae | Ranjire | H | |
| 140. | <i>Pinda concanensis</i> (Dalzell) P.K. Mukh. & Constance | Apiaceae | Pand | H | En. LR |
| 141. | <i>Pogostemon benghalensis</i> (Burm. f.) Kuntze | Lamiaceae | Pangali | H | |
| 142. | <i>Pogostemon deccanensis</i> (Panigrahi) Press | Lamiaceae | Redangi | H | En. |
| 143. | <i>Porpax reticulata</i> Lindl. | Orchidaceae | | EH | |
| 144. | <i>Protasparagus racemosus</i> Oberm | Asparagaceae | Shatavari | C | M |
| 145. | <i>Prunus ceylanica</i> Miq. | Rosaceae | Badam | T | |
| 146. | <i>Rhamphicarpa longiflora</i> Wight ex Benth. | Scrophulariaceae | Tutari | H | |
| 147. | <i>Ricinus communis</i> L. | Euphorbiaceae | Erandi | MT | M |
| 148. | <i>Rothea serrata</i> (L.) Steane & Mabb. | Verbenaceae | Bharangi | S | WE |
| 149. | <i>Scutia myrtina</i> (Burm. f.) Kurz | Rhamnaceae | Chimat | T | |
| 150. | <i>Smithia agxharkarii</i> Hemadri | Fabaceae | Kawla | H | En.V |
| 151. | <i>Smithia hirsuta</i> Dalzell | Fabaceae | Nal | H | |
| 152. | <i>Smithia sensitiva</i> Aiton | Fabaceae | Wakal | H | |
| 153. | <i>Solanum anguivi</i> Lam. | Solanaceae | Chichurdi | H | M,WE |

| | | | | | |
|------|---|------------------|-------------|----|---------|
| 154. | <i>Striga densiflora</i> (Benth.) Benth. | Scrophulariaceae | Tarphula | PH | |
| 155. | <i>Syzygium cumini</i> (L.) Skeels | Myrtaceae | Jambhul | T | M |
| 156. | <i>Tephrosia purpurea</i> (L.) Pers. | Fabaceae | Unhali | H | M |
| 157. | <i>Terminalia arjuna</i> (Roxb. ex DC.) Wight & Arn. | Combretaceae | Arjun | T | M |
| 158. | <i>Terminalia bellirica</i> (Gaertn.) Roxb. | Combretaceae | Behada | T | M |
| 159. | <i>Terminalia chebula</i> Retz. | Combretaceae | Hirada | T | M |
| 160. | <i>Terminalia crenulata</i> Roth | Combretaceae | Kinjal | T | |
| 161. | <i>Terminalia elliptica</i> Willd. | Combretaceae | Ain | T | |
| 162. | <i>Thunbergia fragrans</i> Roxb. | Thunbergiaceae | Dahyali | C | WO |
| 163. | <i>Tragia hispida</i> Willd. | Asteraceae | | H | |
| 164. | <i>Tylophora dalzellii</i> Hook. f. | Asclepiadaceae | Pitmari | C | |
| 165. | <i>Utricularia caerulea</i> L. | Lentibulariaceae | Dhavadi | H | |
| 166. | <i>Utricularia graminifolia</i> Vahl | Lentibulariaceae | - | H | |
| 167. | <i>Utricularia reticulata</i> Sm. | Lentibulariaceae | - | H | |
| 168. | <i>Vernonia indica</i> C.B. Clarke | Asteraceae | Bramhadandi | S | |
| 169. | <i>Wagathea spicata</i> Dalzell | Caesalpiniaceae | Wakeri | S | ME; M |
| 170. | <i>Wattakaka volubilis</i> (L. f.) Stapf | Asclepiadaceae | Hiran-dodi | C | |
| 171. | <i>Wendlandia thyrsoides</i> (Roem. & Schult.) Steud. | Rubiaceae | Pervi | H | |
| 172. | <i>Woodfordia fruticosa</i> (L.) Kurz | Lythraceae | Dhayati | S | M |
| 173. | <i>Wrightia tinctoria</i> R. Br. | Apocynaceae | Kalakuda | T | |
| 174. | <i>Xantolis tomentosa</i> (Roxb.) Raf. | Sapotaceae | Kombal | T | |
| 175. | <i>Zanthoxylum rhetsa</i> DC. | Rutaceae | Tirphal | T | |
| 176. | <i>Zingiber neesianum</i> (J. Graham) Ramamoorthy | Zingiberaceae | Ran-Ale | H | |
| 177. | <i>Ziziphus rugosa</i> Lam. | Rhamnaceae | Toran | S | WE; En. |

Note: H- Herb; S- Shrub, T- Tree; MT- Medium tree; C- Climber; L- Liana; EH- Epiphytic Herb; SS – Small Shrub; CH – Climbing Herb; PH – Parasitic Herb.

En. - Endemic; WE – Wild Edible; M – Medicinal; WO – Wild Ornamental; EW – Exotic Weed; ME – Monotypic Endemic; O- Ornamental; CR- Critically Endangered; LR – Low Risk; End. – Endangered; V- Vulnerable

The habitat analysis showed that the herbs predominate with 64 species (36.36 %) followed by trees (41 species 23.29%), shrubs (24 species 13.63%), climbers (16 species 9.09 %), medium trees (10 species 6 %), lianas (5 species 3%) and small shrubs least with (3 species 2%). Along with these some species represent special habit such as epiphytes 11 (6.25%), parasitic herbs 2 (1.13 %), climbing herb 1 (0.56%). The family Orchidaceae is dominant with 19 species followed by Rubiaceae 12 species and Fabaceae 9 species (table 2 – 5).

Table 2 Statistical Analysis of the present investigation

| Class | Families | Genera | Species |
|----------------|---------------|--------|---------|
| Gymnosperm | 01 | 01 | 01 |
| Dicotyledons | Polypetalaee | 28 | 46 |
| | Gamopetalaee | 18 | 50 |
| | Monochlamydae | 09 | 18 |
| Monocotyledons | 09 | 22 | 40 |

Table 3 Largest families with maximum number of taxa

| Sr. No. | Families | No. of taxa |
|---------|-------------|-------------|
| 1. | Orchidaceae | 19 |
| 2. | Rubiaceae | 12 |

| | | |
|----|----------|----|
| 3. | Fabaceae | 09 |
|----|----------|----|

Table 4 Analysis habit of species

| Sr. No. | Habit | No. of taxa |
|---------|----------------|-------------|
| 1 | Herb | 64 |
| 2 | Tree | 41 |
| 3 | Shrub | 24 |
| 4 | Climber | 16 |
| 5 | Epiphytic herb | 11 |
| 6 | Medium tree | 10 |
| 7 | Liana | 5 |
| 8 | Small shrub | 3 |
| 9 | Parasitic herb | 2 |
| 10 | Climbing herb | 1 |

Table 5 Analysis of status of species

| | |
|-----------------------|----|
| Endemic | 26 |
| Medicinal | 26 |
| Wild edible | 13 |
| Wild ornamental | 7 |
| Endangered | 5 |
| Ornamental | 4 |
| Critically Endangered | 2 |
| Vulnerable | 2 |
| Exotic Weed | 2 |
| Low Risk | 1 |
| Monotypic Endemic | 1 |

About 80 % of herbal medicines are being collected from forests and natural habitats. Due to different anthropogenic activities natural habitats are under great threat. This has resulted in decline of bioresources obtained from forests. Traditionally human has conserved forests in form of sacred groves which are the real way of *in situ* conservation. These groves had been serving the society since past. Sacred groves harbors unique plant species cannot grow in open forests or plains such as *Entada*, orchids etc. The study reveals the importance of sacred groves in socioeconomic aspects and need of protection of such sites. It also reveals that there is a need to create awareness among the ethnic groups about the use and conservation of resources of sacred groves.

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